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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,986	04/08/2004	Rey Bravo	LCB420	9039
32915	7590	12/12/2006	EXAMINER	
PANDUIT CORP. LEGAL DEPARTMENT - TP12 17301 SOUTH RIDGELAND AVENUE TINLEY PARK, IL 60477			NEWTON, JARED W	
			ART UNIT	PAPER NUMBER
			3692	

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/820,986	Applicant(s) BRAVO ET AL.	
	Examiner Jared W. Newton	Art Unit 3634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15,20-22 and 32-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15,20-22 and 32-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This final rejection is in reply to the remarks filed September 22, 2006, by which claims 1, 8, 9, 15, 20, and 21 were amended, claims 16-19 and 23-31 were withdrawn, and claims 32-49 were added. Claims 1-15, 20-22, and 32-49 are pending.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 38, 39, 44, and 45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the recitations, "isolated from all portions of said cables contacting said tray" (claims 38 and 39), and "cables substantially parallel to the direction they take ..." (claims 44 and 45) render the claims indefinite. A cable is not an element of the claimed invention and it is improper to seek to define claimed structure based on a comparison to some unclaimed element. In this case, the metes and bounds of the claim cannot be properly ascertained because one would not know whether their device infringed the instant claim until someone else later added a cable. Accordingly, the features of the device itself must be defined instead of relying upon a comparison with an unclaimed element.

***Claim Rejections - 35 USC § 103***

Claims 1-5, 8-12, 15, 20-22, 32-40, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,758,003 to Wheeler et al. (Wheeler), in view of US Patent No. 6,819,857 to Douglas et al. (Douglas).

Wheeler discloses a cable management rack comprising: a frame 12; first frame mountable component 30 and second frame mountable component 31, said components comprising fiber optic ports or adapters (see Col. 3, Ln. 50-55); a frame mountable pass through tray or trough 60 disposed on said frame between said first and second components, said trough for routing said cables between said front side of said rack and said rear side of said rack (see FIG. 3); said trough having a base portion 18,60a,60b,62 for supporting said cables, and being inherently mounted to said frame (see FIG. 6); said trough having a sidewall 64 for retaining said cable on said base 18,60a,60b,62, wherein said sidewall comprises a bend radius control (see FIG. 6); a rear channel defined by rear troughs of said base at 18 for routing cables generally transversely to the direction they take when being routed between said front and rear sides of said rack; said base having an upstanding spool 64 for providing bend radius supports for cables routed between said base of said tray and said rear channel (see FIG. 6).

Wheeler et al. recite, "The distribution troughs 60 are positioned beneath each one of assemblies 30-35, 30'-35' and extend from a front end 60a to a rear end 60b. The ends 60a, 60b are each provided with radius limiters 64 to prevent excessive bending of fibers passing through ends 60a, 60b. Clips 66 retain fibers within the

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troughs 60. The front end 60a is aligned with the retaining clip 42 beneath each assembly 30-35, 30'-35'. The rear end 60b is open into an aligned rear trough 18. The distribution troughs 60 run perpendicularly to rear troughs 18. Each distribution trough 60 is provided with an individual one of the branch troughs 62. The branch troughs 62 are parallel to the rear troughs 18 and extend from the distribution troughs 60 toward the central trough 20. The branch troughs 62 are connected to and in communication with the distribution troughs 60. At the point of connection of troughs 60,62, radius limiters 70 are provided to prevent excessive bending of fibers passing between the troughs 60,62. The branch troughs 62 terminate spaced from the sidewalls 20a, 20b of central trough 20 as indicated by the distance, D, shown in FIG. 4. At their terminal ends, the troughs 62 are provided with radius limiters including a downwardly turned radius limiter 72." (See Col. 4, Ln.64 – Col. 5, Ln. 20).

Wheeler does not disclose at least one upstanding spool disposed substantially at a center of said tray. Douglas discloses a storage tray arrangement for storing cable slack in fiber optic systems, said tray 44 including an upstanding spool 98 disposed in the center of said tray (see FIG. 12).

The Wheeler and Douglas references are analogous art because they are from the same field of endeavor—cable management racks. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the upstanding spool as disclosed by Douglas on the tray as disclosed by Wheeler. Wheeler discloses a novel rack for storing and distributing fibers and cables. Wheeler further discloses the use of spools 24 on the front surface of said rack, said spools used to gather excess

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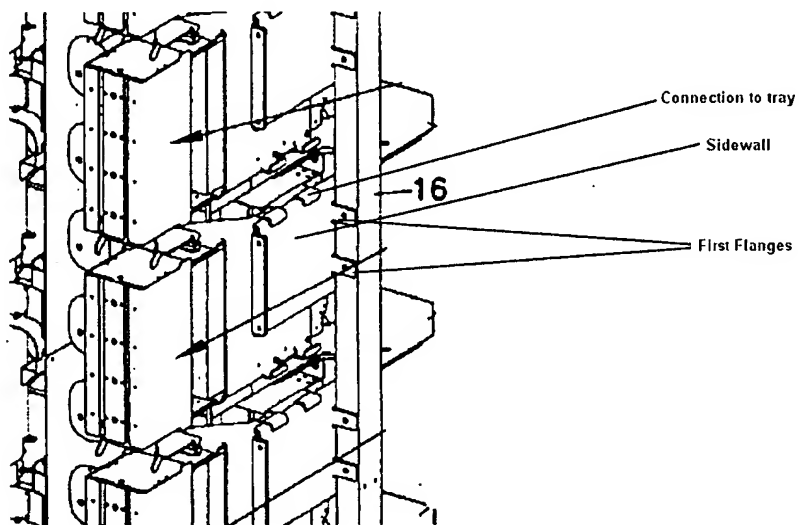
cable slack (see FIG. 1). Wheeler does not disclose a similar spool on the rear of said rack, particularly in the center of the rear channel portions 18 (see FIG. 2). Douglas discloses the upstanding spool 98 which projects from the flat base portion of a tray 44, said spool 98 further comprising tabs 106 for holding a cable in place when spooled. The arrangement disclosed by Douglas provides, "easier manipulation of the cable slack under the tabs 106 and around the spool 98" (see col. 6, lines 41-44). It follows that it would be an obvious and successful improvement of the rack disclosed by Wheeler to include an upstanding spool as disclosed by Douglas on the rear side of said rack, particularly at the center of channel 18, so as to allow for easy management of cable slack that may be on both sides of said rack. Such an arrangement would further provide protection of said cables—a motivation set forth by Douglas (see col. 1, lines 22-25).

In regard to claims 20-22, the examiner takes official notice that the limitation of a plurality of racks does not carry patentable weight over the rack as set forth by Wheeler et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide more than one rack as set forth by Wheeler et al., and to route cables between said racks, as is well known in the art. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). The court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

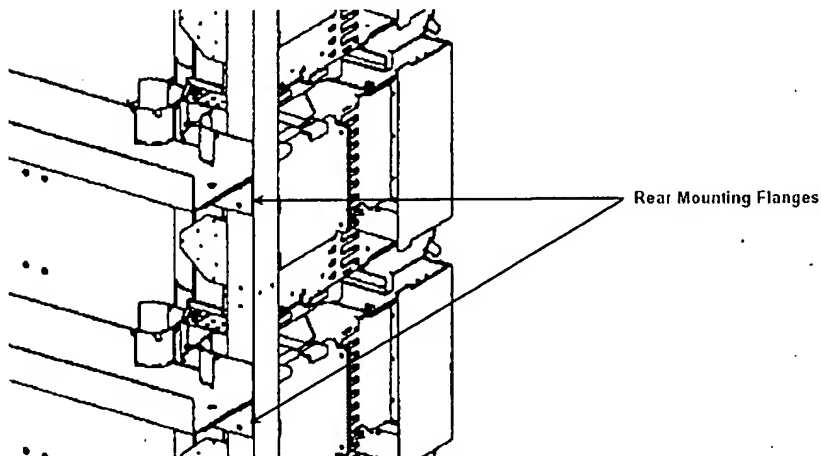
In regard to claims 32-34, Douglas further discloses said upstanding spool 98 as isolated from all walls of said tray 44 (see FIG. 12).

In regard to claims 35-40 Douglas further discloses said tray comprising a second sidewall (see Examiner's Figure 1E below), wherein said second sidewall comprises first flanges extending perpendicularly therefrom for attachment to the rack.

In regard to claims 47-49, Douglas further discloses a mounting flange at the rear of the rack (see Examiner's Figure 2E below).



**Examiner's Figure 1E: Front Mounting Flanges**



**Examiner's Figure 2E: Rear Mounting Flanges**

Claims 6, 7, 13, 14, and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler in view of Douglas as applied to claims 1 and 9 above, and further in view of US Patent No. 6,365,834 to Larsen et al.

Wheeler in view of Douglas discloses the rack as set forth above in accordance with the limitations of claims 1, 2, 5, 9, 12, and 20 but does not disclose waterfall portions or rear vertical elevators.

Larsen et al. discloses a cable management rack comprising waterfall portions and a rear vertical elevator, wherein said waterfalls extend laterally in a direction perpendicular to the direction taken from the front of the rack to the rear of the rack (see FIG. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the rear portions of the rack as set forth by Wheeler et al. with the waterfall portions and elevator as set forth by Larsen et al., so that said waterfalls extend outwardly, perpendicular to a direction from the front to the rear of the rack. The use of said waterfall portions and rear elevators are well known in the art, and would be an obvious improvement to the rack as set forth by Wheeler et al., by providing bend radius control at the end of said trough portions, and cable guidance and retention at the rear of the rack—a motivation set forth by Larsen.

Claims 41-43 rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler in view of Douglas as applied to claims 4, 11, and 20 above, and further in view of US Patent No. 6,532,332 to Solheid et al. (Solheid).



Wheeler in view of Douglas discloses a cable management rack comprising the limitations of claims 4, 11, and 20 as set forth above, including an interior side wall having a bend radius control portion. Wheeler in view of Douglas does not disclose said tray comprising at least one bend radius control extension extending substantially perpendicularly from the side wall proximate to the bend radius control portion.

Solheid discloses a cable management rack having various cable guides, including guide 138 (see FIG. 10), which includes sidewall 190 terminating in a bend radius portion 140 (see FIGS. 9-11). Said sidewall portion further includes clip 146 having curved surface 164, said curved surface acting as an extension portion for the bend radius of a cable, and extending substantially perpendicularly from the side wall proximate the bend radius control portion (see FIGS. 9-11).

The Wheeler, Douglas, and Solheid references are analogous art because they are from the same field of endeavor—cable management racks. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the perpendicularly extending bend radius portion as disclosed by Solheid on the side wall as disclosed by Wheeler, so that said portion extends from said sidewall 64 perpendicularly proximate the bend radius portion of said sidewall, in a manner similar to how said portion extends perpendicularly proximate said control portion 140 of Solheid. Wheeler discloses a novel rack for storing and distributing fibers and cables. Wheeler further discloses the sidewall having a bend radius control portion for guiding cables in a specific direction (see FIG. 6). Wheeler does not disclose a similar portion for guiding cables in an alternative direction. Douglas meets this deficiency by

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disclosing the additional perpendicularly extending portion, so as to "provide separate channels" for different cables (see col. 6, lines -25). It follows that it would be an obvious and successful improvement of the rack disclosed by Wheeler to include an additional radius bend portion so as to provide multiple paths for different cables to take when being routed throughout the rack. It is well known in the art of cable management racks to provide the various paths and channels for cables to occupy, and Solheid provides a successful means for accomplishing this desire.

### ***Response to Arguments***

In view of the Amendments filed September 22, 2006, the Claim Rejections under 35 U.S.C. 112 1<sup>st</sup> Paragraph set forth in the Office Action mailed April 24, 2006 are hereby withdrawn.

Applicant's arguments with respect to the claim rejections based on Wheeler and Larsen have been considered but are moot in view of the new ground(s) of rejection.

In view of the Applicant's assertion of common ownership of the instant invention and US Patent No. 6,614,978 to Caveney, pursuant to 35 U.S.C. § 103(c), the Caveney reference and the rejections based thereon as set forth in the Office Action dated April 24, 2006 are hereby withdrawn.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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- US Patent No. 4,792,203 to Nelson et al.
- US Patent No. 5,504,986 to Wambeke et al.
- US Patent No. 6,715,619 to Kim et al.
- US Patent No. 6,748,155 to Kim et al.
- US Patent No. 6,944,383 to Herzog et al.
- US Patent No. 7,079,745 to Weinert et al.
- US Patent No. 7,083,051 to Smith et al.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

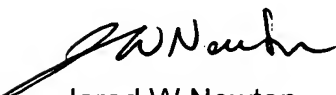
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared W. Newton whose telephone number is (571) 272-2952. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jared W Newton  
November 28, 2006  
JWN

  
RICHARD CHILCOT, JR.  
SUPERVISORY PATENT EXAMINER